WHAT IS CLAIMED IS:

1. A method of fabricating a shaped block, comprising steps of:

providing a substrate, said substrate including an upper surface;

providing a sacrificial layer overlying said upper surface;

forming a block layer comprising a plurality of tapered blocks overlying said sacrificial layer;

removing at least one of said plurality of tapered blocks from said sacrificial layer; and

transferring said at least one of said plurality of blocks into a fluid.

2. The method of claim 1 wherein said forming step comprising masking said block layer and etching said block layer to form said plurality of shaped blocks.

3. The method of claim 1 wherein said block layer comprises a crystalline material.

4. The method of claim 3 wherein said forming step comprises a selective etching process.

5. The method of claim 1 wherein said forming step comprises potassium hydroxide etch process.

6. The method of claim 1 wherein said forming step comprises an undercutting dry etching process.

7. The method of claim 1 wherein said forming step comprises a substantially vertical etch followed up by a preferential wet etch to produce an undercut.

8. The method of claim 1 wherein said forming step comprises a tilted vertical ion etching process.

9. The method of claim 1 wherein said substrate is a semiconductor wafer comprising [100] orientation silicon.

10. The method of claim 1 wherein said forming step is a preferential etching process.

11. The method of claim 1 wherein said removing step is achieved by removing said sacrificial layer using chemical conversion followed by selective etching and thereby releasing said blocks.

12. The method of claim 1 wherein said substrate is part of a silicon-on-insulating (SOI) wafer.

13. The method of claim 1 wherein said trapezoidal shaped block includes a truncated pyramid shape.

14. The method of claim 13 wherein said truncated pyramid shape includes a base and sides protruding from said base to a top.

15. The method of claim 14 wherein said top includes a rough surface.

16. The method of claim 1 wherein said substrate comprises a single-side-polished wafer and wherein said block layer is provided from said substrate.

17. Apparatus for assembling a microstructure on a substrate with at least one recessed region thereon, said apparatus comprising:

a vessel comprising a substrate therein, said substrate comprising a recessed region thereon;

a circulation system coupled to said vessel, said circulation system circulating a plurality of shaped blocks at a rate where at least one of said shaped blocks is disposed into said recessed region.

18. Apparatus of claim 17 wherein said vessel comprises a vibration system to vibrate said substrate.

19. Apparatus of claim 17 wherein said vibration system comprises ultrasonic frequencies.

20. Apparatus of claim 17 wherein said vessel further comprises a receptacle with a funneled bottom; a conduit having an input, said input coupled to said funneled bottom and to said circulation system; a column coupled to said input; and an output coupled to said column and leading to said receptacle.

21. Apparatus of claim 17 wherein said circulation system comprises a pump coupled to said conduit, said pump dispensing a gas to facilitate the circulation of said shaped blocks in said vessel.

22. Apparatus of claim 17 wherein said receptacle further comprises a holder for moving said substrate to facilitate disposition of said shaped block into a recessed region.

23. Apparatus of claim 17 wherein said pump is adjustable to provide a selected rate to circulate said shaped blocks.

24. Apparatus of claim 17 wherein said gas includes nitrogen.

25. Apparatus of claim 17 wherein said circulation system can recirculate said shaped blocks.